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STRUCTURE FILE UPDATES: 14 NOV 2000 HIGHEST RN 302896-64-6

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TSCA INFORMATION NOW CURRENT THROUGH July 8, 2000

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=> e glycosylated antibody/cn

E1	1	GLYCOSYLASE, ADENINE (ESCHERICHIA COLI STRAIN K12-MG1655
GEN		
		E MUTY A/G-SPECIFIC)/CN
E2	1	GLYCOSYLASPARAGINASE/CN
E3	0 -->	GLYCOSYLATED ANTIBODY/CN
E4	1	GLYCOSYLATED PROTEINS/CN
E5	1	GLYCOSYLATION ENZYME (ARABIDOPSIS THALIANA CLONE BAC-F4C21
G		
		ENE F4C21.27)/CN
E6	1	GLYCOSYLATION ENZYME-LIKE PROTEIN (ARABIDOPSIS THALIANA
STRA		
		IN COLUMBIA CLONE K7L4)/CN
E7	1	GLYCOSYLATION-INHIBITING FACTOR (MOUSE 231F1 55-KILODALTON
A		
		NTIGEN-SPECIFIC T-CELL RECEPTOR TCR .ALPHA.-SUBUNIT
V.ALPHA.		
		11.3-J-C PRECURSOR)/CN
E8	1	GLYCOSYLATION-INHIBITING FACTOR (SWINE)/CN
E9	1	GLYCOSYLATION-INHIBITING FACTOR GIF (HUMAN)/CN
E10	1	GLYCOSYLATION-INHIBITING FACTOR GIF (MOUSE)/CN
E11	1	GLYCOSYLCERAMIDASE/CN
E12	1	GLYCOSYLCERAMIDES/CN

=> e ketone/cn 5

E1	1	KETON 250/CN
E2	1	KETON GREEN B/CN
E3	0 -->	KETONE/CN
E4	1	KETONE 1-CHLOROCYCLOHEXYL CYCLOHEXYL/CN
E5	1	KETONE 1-CYCLOHEPTEN-1-YL PHENYL,
		(2,4-DINITROPHENYL) HYDRAZO
		NE/CN

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Page 1

=> e "n-levulinoyl mannosamine"/cn 5

E1	1	N-LEUCYLGLUTAMIC ACID/CN
E2	1	N-LEUCYLVALINE/CN
E3	0 -->	N-LEVULINOYL MANNOSAMINE/CN
E4	1	N-LEVULINOYLSUCCINIMIDE/CN
E5	1	N-LIGNOCEROYLSPHINGOSINE/CN

=> e "n-levulinoyl fucose"/cn 5

E1	1	N-LEUCYLGLUTAMIC ACID/CN
E2	1	N-LEUCYLVALINE/CN
E3	0 -->	N-LEVULINOYL FUCOSE/CN
E4	1	N-LEVULINOYLSUCCINIMIDE/CN
E5	1	N-LIGNOCEROYLSPHINGOSINE/CN

=> e hydrzide/cn 5

E1	1	HYDRYUSION L 5503A/CN
E2	1	HYDRYUSION L 5503A, POLYMER WITH LB 60 (EPOXY RESIN)/CN
E3	0 -->	HYDRZIDE/CN
E4	1	HYDSEAL SL/CN
E5	1	HYDURA/CN

=> e hydrazine/cn 5

E1	1	HYDRAZIDOTHIOPHOSPHORIC ACID/CN
E2	1	HYDRAZIMETHYLENE/CN
E3	1 -->	HYDRAZINE/CN
E4	1	HYDRAZINE (1,1,2(OR 1,2,2)-TRICHLORO-3,3,3-TRIFLUOROPROPYL) TRIS(TRIFLUOROMETHYL)-/CN
E5	1	HYDRAZINE (15N2H4)/CN

=> s e3

L1	1	HYDRAZINE/CN
----	---	--------------

=> e hydrazide/cn 5

E1	1	HYDRAZID/CN
E2	1	HYDRAZIDAZOL/CN
E3	1 -->	HYDRAZIDE/CN
E4	1	HYDRAZIDE (H2N22-)/CN
E5	1	HYDRAZIDE (H3N21-)/CN

=> s e3

L2	1	HYDRAZIDE/CN
----	---	--------------

=> e hydroxylamine/cn 5

E1	1	HYDROXYL-T/CN
E2	1	HYDROXYLAGOPODIN B/CN
E3	1 -->	HYDROXYLAMINE/CN

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E4 1 HYDROXYLAMINE (ND2OH)/CN
E5 1 HYDROXYLAMINE (NH2OD)/CN

=> s e3

L3 1 HYDROXYLAMINE/CN

=> e thiosemicarbazide/cn 5

E1 1 THIOSELENONYL HYDRIDE ((SES2)H2)/CN
E2 1 THIOSEMICARBAZID-1-IUM DIHYDROGENPHOSPHATE/CN
E3 1 --> THIOSEMICARBAZIDE/CN
E4 1 THIOSEMICARBAZIDE CONJUGATE ACID/CN
E5 1 THIOSEMICARBAZIDE DIHYDROFLUORIDE/CN

=> s e3

L4 1 THIOSEMICARBAZIDE/CN

=> fil medl,caplus,biosis,embase,wpids,jicst

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	15.30	15.45

FILE 'MEDLINE' ENTERED AT 09:50:15 ON 15 NOV 2000

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=> s (glycosylat? or (g6.535.504 or h1.181.404.495)/ct) and
(levulinoyl(w)(mannosamine or fucose) or (ketone or
d2.522/ct)(10a)(saccharide or hydrazil?e? or hydroxylamine? or
thiosemicarbazide? or l1 or l2 or l3 or l4))

PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'D2.522/CT)(10A)(SACCHARID'
L5 1 FILE MEDLINE
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'D2.522/CT)(10A)(SACCHARID'
L6 2 FILE CAPLUS
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
Prepared by M. Hale 308-4258

FIELD CODE - 'AND' OPERATOR ASSUMED 'D2.522/CT) (10A) (SACCHARID'
L7 0 FILE BIOSIS
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'D2.522/CT) (10A) (SACCHARID'
L8 0 FILE EMBASE
L9 2 FILE WPIDS
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'D2.522/CT) (10A) (SACCHARID'
L10 4 FILE JICST-EPLUS

TOTAL FOR ALL FILES

L11 9 (GLYCOSYLAT? OR (G6.535.504 OR H1.181.404.495)/CT) AND
(LEVULINO

YL(W) (MANOSAMINE OR FUCOSE) OR (KETONE OR
D2.522/CT) (10A) (SACCH
ARIDE OR HYDRAZI!E? OR HYDROXYLAMINE? OR THIOSEMICARBAZIDE? OR
L1 OR L2 OR L3 OR L4))

=> s (domain or v(w) (k or kappa) or chl)

L12 117828 FILE MEDLINE
L13 200957 FILE CAPLUS
L14 126350 FILE BIOSIS
L15 113189 FILE EMBASE
L16 28683 FILE WPIDS
L17 18189 FILE JICST-EPLUS

TOTAL FOR ALL FILES

L18 605196 (DOMAIN OR V(W) (K OR KAPPA) OR CH1)

=> s l11 and l18

L19 0 FILE MEDLINE
L20 1 FILE CAPLUS
L21 0 FILE BIOSIS
L22 0 FILE EMBASE
L23 1 FILE WPIDS
L24 0 FILE JICST-EPLUS

TOTAL FOR ALL FILES

L25 2 L11 AND L18

=> dup rem l25

PROCESSING COMPLETED FOR L25

L26 1 DUP REM L25 (1 DUPLICATE REMOVED)

=> d cbib abs 1;s l11 not l25

L26 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2000 ACS DUPLICATE 1
1999:325973 Document No. 130:336967 **Glycosylated** antibodies and
antibody fragments having reactive **ketone** groups. Leung,
Shui-On; McBride, William J.; Qu, Zhengxing; Hansen, Hans (Immunomedics,
Inc., USA). PCT Int. Appl. WO 9924472 A2 19990520, 32 pp. DESIGNATED
STATES: W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,
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DE, DK, EE, ES, FI, GB, GD, GE, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1998-US23238 19981106. PRIORITY: US 1997-64386 19971106.

AB The authors disclose methods of making **glycosylated** antibodies or antibody fragments having reactive **ketone** groups within the **saccharide** residues. The method comprises transfecting a cell with a vector encoding an antibody having **glycosylation** sites engineered within the **V.kappa.** or **CH1 domains**. Culture of the transfecting cells in medium contg. a **ketone** deriv. of a **saccharide** (e.g., N-levulinoyl fucose) or **saccharide** precursor (e.g., N-levulinoyl mannosamine) allows for biosynthetic incorporation of the reactive **ketone saccharides** within the engineered oligosaccharides. In addn., the authors disclose immunoconjugates prepd. from the **glycosylated** antibodies. In one example, the oligosaccharide of engineered ant-CD22 antibodies was conjugated to DTPA derivs. to prep. ¹¹¹In and ⁹⁰Y chelates.

In a second example, the oligosaccharide of engineered ant-CD22 antibodies was conjugated to doxorubicin.

L27 1 FILE MEDLINE
L28 1 FILE CAPLUS
L29 0 FILE BIOSIS
L30 0 FILE EMBASE
L31 1 FILE WPIDS
L32 4 FILE JICST-EPLUS

TOTAL FOR ALL FILES

L33 7 L11 NOT L25

=> dup rem l33

PROCESSING COMPLETED FOR L33

L34 7 DUP REM L33 (0 DUPLICATES REMOVED)

=> d 1-7 cbib abs

L34 ANSWER 1 OF 7 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

AN 2000-317858 [27] WPIDS

AB WO 200021573 A UPAB: 20000606

NOVELTY - Producing (A) a protein, polypeptide or peptide conjugate with at least 1 disulfide bond necessary to maintain its biological activity, and linked to at least 1 thiol-containing moiety by a hydrazone or hydrazine linkage, without cleaving the bond, comprising contacting the protein, polypeptide or peptide with a thiol-reactive diagnostic or therapeutic agent, either preformed or generated in situ, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the
Prepared by M. Hale 308-4258 Page 5

following:

(1) a kit for producing a radiolabeled **glycosylated** divalent antibody fragment comprising a **glycosylated** divalent antibody fragment whose partially oxidized carbohydrate portion is joined through a hydrazone or hydrazine linkage to a peptide comprising at least 1 thiol-containing chelator;

(2) a diagnostic or therapeutic conjugate of a protein, polypeptide or peptide containing at least 1 disulfide bond necessary to maintain its biological activity, produced by the method of (A);

(3) a kit for producing a diagnostic or therapeutic conjugate as in (2) comprising:

(a) a protein, polypeptide or peptide containing at least 1 disulfide bond necessary to maintain its biological activity, and at least 1 thiol-containing moiety comprising a chelator linked to it through a hydrazone or hydrazine linkage; and

(b) a thiol-reactive diagnostic or therapeutic cationic radionuclide, either preformed or generated in situ.

USE - The methods can be used for conjugating diagnostic or therapeutic agents to proteins, polypeptides or peptides which may act as targeting agents for desired sites. The diagnostic or therapeutic agent may be e.g. drugs, antibodies, antibody fragments, proteins, glycoproteins, DNA, RNA, PNA, metal complexes, diagnostic and therapeutic radiolabeled species, enzymes, toxins or sugars (claimed).

ADVANTAGE - The method can produce the conjugate without reducing disulfide bonds that maintain structure and/or conformation related to protein, polypeptide or peptide activity. The conjugates formed are stable

in vitro and in vivo.

Dwg.0/0

L34 ANSWER 2 OF 7 MEDLINE

1999030386 Document Number: 99030386. Metabolic delivery of **ketone** groups to sialic acid residues. Application To cell surface glycoform engineering. Yarema K J; Mahal L K; Bruehl R E; Rodriguez E C; Bertozzi C R. (Department of Chemistry, University of California, Berkeley, California 94720 and Materials Sciences Division, Lawrence Berkeley National Laboratory, Berkeley, California 94720, USA.) JOURNAL OF BIOLOGICAL CHEMISTRY, (1998 Nov 20) 273 (47) 31168-79. Journal code:

HIV.

ISSN: 0021-9258. Pub. country: United States. Language: English.

AB The development of chemical strategies for decorating cells with defined carbohydrate epitopes would greatly facilitate studies of carbohydrate-mediated cell surface interactions. This report describes a general strategy for engineering the display of chemically defined oligosaccharides on cell surfaces that combines the concepts of metabolic engineering and selective chemical reactivity. Using a recently described method (Mahal, L. K., Yarema, K. J., and Bertozzi, C. R. (1997) Science 276, 1125-1128), we delivered a uniquely reactive **ketone** group to endogenous cell surface sialic acid residues by treating cells with

the

ketone-bearing metabolic precursor N-levulinoylmannosamine (ManLev). The **ketone** undergoes highly selective condensation reactions with complementary nucleophiles such as aminoxy and **hydrazide** groups. The detailed quantitative parameters of ManLev

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metabolism in human and nonhuman-derived cell lines were determined to establish a foundation for the modification of cell surfaces with novel epitopes at defined cell-surface densities. **Ketones** within the glycoconjugates on ManLev-treated cells were then reacted with synthetic aminooxy and **hydrazide**-functionalized carbohydrates. The remodeled cells were endowed with novel lectin binding profiles as determined by flow cytometry analysis. The simplicity and generality of this method make it well suited for use in the study of carbohydrate-mediated cell surface interactions.

L34 ANSWER 3 OF 7 JICST-EPlus COPYRIGHT 2000 JST

940947147 Drug Binding Properties of **Glycosylated** Bovine Serum

Albumin as Measured by Circular Dichroism.. OKABE N; NAKASAKA T. Kinki Univ., Osaka, JPN. Biol Pharm Bull. (1994) vol. 17, no. 11, pp. 1505-1507. Journal Code: S0989A (Fig. 4, Ref. 19) CODEN: 0918-6158; Pub. Country: Japan. Language: English.

AB The binding properties of Sudlow's site-specific drugs to **glycosylated** bovine serum albumin (G-BSA) (1.25 mol glucose per mol of albumin) have been investigated using the circular dichroism (CD) method. Site I-specific drugs, phenylbutazone and warfarin, and site II-specific drugs, flufenamic acid and ibuprofen, were used. The induced ellipticities of phenylbutazone, flufenamic acid and ibuprofen-G-BSA complexes diminished and those of warfarin complex were enhanced in comparison with those for the intact bovine serum albumin (BSA) complexes.

These CD change suggests that the **glycosylation** of BSA at the primary modification site influences the binding properties of the site-specific drugs to serum albumin. (author abst.)

L34 ANSWER 4 OF 7 JICST-EPlus COPYRIGHT 2000 JST

940162029 Drug Binding Properties of **Glycosylated** Human Serum Albumin

as Measured by Fluorescence and Circular Dichroism.. OKABE N; HASHIZUME

N.

Kinki Univ., Osaka, JPN. Biol Pharm Bull. (1994) vol. 17, no. 1, pp. 16-21. Journal Code: S0989A (Fig. 12, Tbl. 1, Ref. 14) CODEN: 0918-6158; Pub. Country: Japan. Language: English.

AB Binding properties of Sudlow's site-specific drugs to **glycosylated** human serum albumin (G-HSA) were investigated using fluorescence and circular dichroism (CD). Dansylamide, phenylbutazone and warfarin were used as site I-specific drugs, and dansylproline, ibuprofen and flufenamic

acid were used as site II-specific ones. Similar changes in the fluorescence intensity of dansylamide occurred in the presence of both G-HSA and intact human serum albumin (HSA), while the fluorescence enhancement of dansylproline caused by G-HSA was extremely weakened in comparison with that by HSA. These results suggest that the **glycosylation** of HSA inhibits the binding of the site II-specific drug, dansylproline, to HSA, while it does not influence the binding of the site I specific drug, dansylamide. The induced ellipticities of the complexes of ibuprofen, flufenamic acid and phenyl butazone with G-HSA were diminished in comparison with those with HSA. With the complexes of warfarin, the induced ellipticity was enhanced. These CD results suggest that the **glycosylation** of HSA induces microenvironmental changes in the binding sites for the above site-specific drugs which influence

the

drug binding ability of HSA. (author abst.)
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L34 ANSWER 5 OF 7 JICST-EPlus COPYRIGHT 2000 JST

930963932 Inactivated products of rifampicin by pathogenic *Nocardia* spp.: Structures of **glycosylated** and phosphorylated metabolites of rifampicin and 3-formylrifamycin SV.. MORISAKI N; IWASAKI S; MAEDA A; YAZAWA K; MIKAMI Y. Univ. Tokyo, Tokyo, JPN; Chiba Univ., Chiba, JPN. J Antibiot. (1993) vol. 46, no. 10, pp. 1605-1610. Journal Code: G0489A (Fig. 4, Tbl. 4, Ref. 10) CODEN: 0021-8820; Pub. Country: Japan.

Language:

English.

AB Rifampicin (1) was converted into four inactivated products by pathogenic *Nocardia*, RIP-1 and RIP-2 by *N. brasiliensis* and RIP-3 and RIP-4 by *N. otitidiscaviarum*. MS and NMR analysis showed the compounds to be 3-formyl-23-.cents.O-(.BETA.-D-glucopyranosyl)!rifamycin SV (2), 23-.cents.O-(,B-Dglucopyranosyl)!rifampicin (3), 21-(O-phosphoryl)rifampicin (4) and 3-formyl-21-(O-phosphoryl)rifamycin SV (5), respectively. (author abst.)

L34 ANSWER 6 OF 7 JICST-EPlus COPYRIGHT 2000 JST

890056763 Hormonal effect on the formation of lipid-**saccharide** intermediates for N-linked glycoprotein biosynthesis of lactating bovine mammary gland in organ culture: Evidence of inhibitory action of hydrocortisone.. KANNO C; LEE C S. Utsunomiya Univ., Utsunomiya, JPN. Agric Biol Chem. (1988) vol. 52, no. 10, pp. 2503-2509. Journal Code: G0021A (Fig. 3, Tbl. 2, Ref. 38) CODEN: ABCHA6; CODEN: 0002-1369; Pub. Country: Japan. Language: English.

AB The effects of prolactin(P), hydrocortisone (F), and insulin(I) on the formation of lipid-**saccharide** intermediates concerned in the N-linked glycoprotein biosynthesis of lactating bovine mammary explants

in

organ culture were examined using radioactive mannose(Man). The response of F was fast (<20hr), while that of P and I was delayed (>72hr). F at concentrations varied from 10⁻³ to 10⁻⁴ MU.g/ml decreased the incorporation of radioactivity from .cents.14C!Man into the lipid-linked **saccharides** (C/M), lipid-linked oligosaccharides (C/M/W), and protein fractions by about 25-30%. On the other hand, at the range of

10⁻⁴

to 5⁻⁴ MU.g/ml, I had a stimulatory effect and P did not affect the N-**glycosylation** of mammary explants. The stimulatory effect of I, however, was negated by with F. Partial inhibition of F was shown by even 10ng/ml. The inclusion of F into the pre-incubation medium significantly inhibited the .cents.14C!Man incorporation in the C/M/W and protein fractions rather than in the C/M fraction. The results suggest that F inhibits the formation of the lipid-linked **saccharide** intermediates for N-**glycosylated** glycoprotein in lactating bovine mammary explants. (author abst.)

L34 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2000 ACS

1983:215911 Document No. 98:215911 2,6-Dideoxy **saccharide** glycosides of .alpha.-hydroxy **ketones**: synthesis and configurational assignment of glycosides with the tetralone substructure of olivomycin. Thiem, Joachim; Gerken, Manfred; Snatzke, Guenther (Inst. Org. Chem. Biochem., Univ. Hamburg, Hamburg, D-2000/13, Fed. Rep. Ger.). Liebigs Ann. Chem. (3), 448-61 (German) 1983. CODEN: LACHDL. ISSN: 0170-2041.

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Condensing diacetyl-L-rhamnal with cyclohexanediol I in the presence of N-iodosuccinimide gave glycosides II and III (R = PhCH₂O, R₁ = H, X = iodo), which on hydrogenolytic deiodination followed by debenzylation gave II and III (R = OH, R₁ = X = H), which on oxidn. gave II and III (RR₁ = O, X = H). Glycosidation of hydroxytetralone IV with diacetyl-L-rhamnal in the presence of N-iodosuccinimide gave V and VI (X = iodo), which on reductive dehalogenation gave V and VI (X = H). The relative configuration at C-2 in the tetralone aglycon of V and VI (X = H) was detd. by CD.

=> fil reg

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	50.30	65.75
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-1.11	-1.11

FILE 'REGISTRY' ENTERED AT 09:55:52 ON 15 NOV 2000
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DICTIONARY FILE UPDATES: 14 NOV 2000 HIGHEST RN 302896-64-6

TSCA INFORMATION NOW CURRENT THROUGH July 8, 2000

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Structure search limits have been increased. See HELP SLIMIT
for details.

=> e "1,4,7,10-tetraazacyclododecane-n,n',n''-triacetic acid"/cn

MISMATCHED QUOTE IN EXPAND TERM

Quotation marks (or apostrophes) must be used in pairs,
one before and one after the expression you are setting
off or masking.

=> e "1,4,7,10-tetraazacyclododecane-n,n',n''-triacetic acid"/cn

E1 1 1,4,7,10-TETRAAZACYCLODODECANE-2-METHANOL,
TRIHYDROBROMIDE,

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Page 9

(S)-/CN
E2 1 1,4,7,10-TETRAAZACYCLODODECANE-N,N',N'',N'''-TETRAACETIC
ACI
D/CN
E3 0 --> 1,4,7,10-TETRAAZACYCLODODECANE-N,N',N'-TRIACETIC ACID/CN
E4 1 1,4,7,10-TETRAAZACYCLODODECANECARBOXALDEHYDE,
1,1'-(1,2-ETHA
NEDIYLBIS(OXY(2-HYDROXY-3,1-PROPANEDIYL)))BIS-/CN
E5 1 1,4,7,10-TETRAAZACYCLODODECANECARBOXALDEHYDE,
1,1'-(1,4-PHEN
YLENEBIS(OXY(2-HYDROXY-3,1-PROPANEDIYL)))BIS-/CN
E6 1 1,4,7,10-TETRAAZACYCLODODECANECARBOXALDEHYDE,
1,1'-(1,5-PENT
ANEDIYLBIS(OXY(2-HYDROXY-3,1-PROPANEDIYL)))BIS-/CN
E7 1
1,4,7,10-TETRAAZACYCLODODECINO(2,3-F)(1,10)PHENANTHROLINE/CN
E8 1 1,4,7,10-TETRAAZACYCLODODECINO(2,3-F)(1,10)PHENANTHROLINE,
1
,2,3,4,5,6,7,8,9,10,10A,18B-DODECAHYDRO-,
(10AR,18BR)-REL-/C
N
E9 1
1,4,7,10-TETRAAZACYCLODODECINO(2,3-F)(1,10)PHENANTHROLINE-1,
4,7,10-TETRAACETIC ACID, 2,3,5,6,8,9,10A,18B-OCTAHYDRO-,
(10
AR,18BR)-REL-/CN
E10 1
1,4,7,10-TETRAAZACYCLODODECINO(2,3-F)(1,10)PHENANTHROLINE-3,
8-DIONE, 1,2,4,5,6,7,9,10,10A,18B-DECAHYDRO-,
(10AR,18BR)-RE
L-/CN
E11 1 1,4,7,10-TETRAAZACYCLOEICOSANE/CN
E12 1 1,4,7,10-TETRAAZACYCLOEICOSANE,
1,4,7,10-TETRAKIS((4-METHYLP
HENYL)SULFONYL)-/CN

=> e dota/cn 5

E1 1 DOSULEPINE/CN
E2 1 DOSULFIN/CN
E3 1 --> DOTA/CN
E4 1 DOTAN/CN
E5 1 DOTAP/CN

=> s e3;d ide can

L35 1 DOTA/CN

L35 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2000 ACS

RN 60239-18-1 REGISTRY

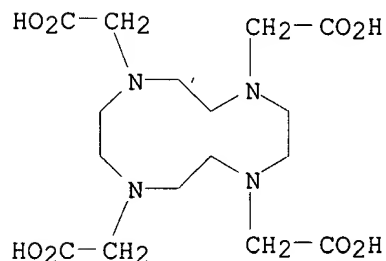
CN 1,4,7,10-Tetraazacyclododecane-1,4,7,10-tetraacetic acid (9CI) (CA INDEX
NAME)

OTHER NAMES:

CN 1,4,7,10-Tetraazacyclododecane-N,N',N'',N'''-tetraacetic acid
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Page 10

CN DOTA
 FS 3D CONCORD
 DR 105416-43-1
 MF C16 H28 N4 O8
 CI COM
 LC STN Files: BEILSTEIN*, BIOBUSINESS, BIOTECHNO, CA, CANCERLIT, CAPLUS,
 CASREACT, CEN, CHEMCATS, CIN, CSCHEM, EMBASE, GMELIN*, MEDLINE, PROMT,
 TOXLINE, TOXLIT, USPATFULL
 (*File contains numerically searchable property data)



239 REFERENCES IN FILE CA (1967 TO DATE)
 142 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 241 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 133:278070
 REFERENCE 2: 133:249059
 REFERENCE 3: 133:219807
 REFERENCE 4: 133:219557
 REFERENCE 5: 133:174050
 REFERENCE 6: 133:70792
 REFERENCE 7: 133:63760
 REFERENCE 8: 133:9331
 REFERENCE 9: 132:331422
 REFERENCE 10: 132:319297

=> fil medl,caplus,biosis,embase,wpids,jicst;s (135 or dota or tetraazacyclododecan(1)triacetic acid)

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	6.09	71.84
DISCOUNT AMOUNT\$ (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION

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L36	285	FILE MEDLINE
L37	487	FILE CAPLUS
L38	281	FILE BIOSIS
L39	267	FILE EMBASE
L40	52	FILE WPIDS
L41	23	FILE JICST-EPLUS

TOTAL FOR ALL FILES

L42 1395 (L35 OR DOTA OR TETRAAZACYCLODODECAN(L) TRIACETIC ACID)

=> s l42 and (glycosylat? or (g6.535.504 or h1.181.404.495)/ct)

L43	0	FILE MEDLINE
L44	6	FILE CAPLUS
L45	0	FILE BIOSIS
L46	0	FILE EMBASE
L47	0	FILE WPIDS
L48	0	FILE JICST-EPLUS

TOTAL FOR ALL FILES

L49 6 L42 AND (GLYCOSYLAT? OR (G6.535.504 OR H1.181.404.495)/CT)

=> s l49 not l33

L50	0	FILE MEDLINE
L51	6	FILE CAPLUS
L52	0	FILE BIOSIS
L53	0	FILE EMBASE
L54	0	FILE WPIDS
L55	0	FILE JICST-EPLUS

TOTAL FOR ALL FILES

L56 6 L49 NOT L33

=> d 1-6 cbib abs

L56 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2000 ACS

1999:655849 Document No. 131:276952 Delivery of diagnostic and therapeutic agents to a target site. Griffiths, Gary L.; Hansen, Hans J.; Govindan, Serengulam V.; Karacay, Habibe (Immunomedics, Inc., USA). U.S. US

5965131

A 19991012, 15 pp., Cont.-in-part of U.S. Ser. No. 486,166, abandoned. (English). CODEN: USXXAM. APPLICATION: US 1996-731107 19961009. PRIORITY: US 1995-486166 19950607.

AB An improvement in in vivo pretargeting methods for delivering diagnostic or therapeutic agents to a target site in a mammal uses a clearing agent that binds to the target-binding site of the targeting species, whereby the non-bound primary targeting species is cleared from circulation but the clearing agent does not remove the bound primary targeting species. Anti-idiotypic antibodies and antibody fragments are preferred clearing agents. Fast clearance is achieved by **glycosylating** the clearing agent with sugar residues that bind to the hepatic asialoglycoprotein receptor.

L56 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2000 ACS

1999:325973 Document No. 130:336967 **Glycosylated** antibodies and antibody fragments having reactive ketone groups. Leung, Shui-On; McBride, William J.; Qu, Zhengxing; Hansen, Hans (Immunomedics, Inc., USA). PCT Int. Appl. WO 9924472 A2 19990520, 32 pp. DESIGNATED STATES:

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1998-US23238 19981106. PRIORITY: US 1997-64386 19971106.

AB The authors disclose methods of making **glycosylated** antibodies or antibody fragments having reactive ketone groups within the saccharide residues. The method comprises transfecting a cell with a vector

encoding

an antibody having **glycosylation** sites engineered within the V.kappa. or CH1 domains. Culture of the transfecting cells in medium contg. a ketone deriv. of a saccharide (e.g., N-levulinoyl fucose) or saccharide precursor (e.g., N-levulinoyl mannosamine) allows for biosynthetic incorporation of the reactive ketone saccharides within the engineered oligosaccharides. In addn., the authors disclose immunoconjugates prepd. from the **glycosylated** antibodies. In one example, the oligosaccharide of engineered ant-CD22 antibodies was conjugated to DTPA derivs. to prep. ¹¹¹In and ⁹⁰Y chelates. In a second example, the oligosaccharide of engineered ant-CD22 antibodies was conjugated to doxorubicin.

L56 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2000 ACS

1997:378293 Document No. 127:86097 Preparation and use of immunoconjugates. Hansen, Hans J.; Leung, Shui-on; Shevitz, Jerry; Griffiths, Gary L.; Govindan, Serengulam V. (Immunomedics, Inc., USA). U.S. US 5635603 A

19970603, 25 pp. Cont.-in-part of U.S. 5,443,953. (English). CODEN: USXXAM. APPLICATION: US 1994-352715 19941205. PRIORITY: US 1993-162912

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19931208.

AB The present invention relates to immunoconjugates comprising an antibody fragment which is covalently bound to a diagnostic or therapeutic principle through a carbohydrate moiety in the light chain variable region

of the antibody fragment. The invention also relates to immunoconjugates comprising an antibody moiety that is an intact antibody contg. a **glycosylation** site in the light chain variable domain which has been introduced into the antibody by mutating the nucleotide sequence encoding the light chain. The resultant immunoconjugates retain the immunoreactivity of the antibody fragment or intact antibody, and target the diagnostic or therapeutic principle to a target tissue where the diagnostic or therapeutic effect is realized. Thus, the invention contemplates the use of such immunoconjugates for diagnosis and immunotherapy. The invention further relates to methods for prepg. such immunoconjugates.

L56 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2000 ACS

1996:414476 Synthesis and magnetic relaxation efficiency of a derivatized GdDTPA complex.. Bryant, L. Henry Jr.; Bryant, Robert G. (Department Chemistry, University Virginia, Charlottesville, VA, 22901, USA). Book of

Abstracts, 212th ACS National Meeting, Orlando, FL, August 25-29, INOR-324. American Chemical Society: Washington, D. C. (English) 1996. CODEN: 63BFAF.

AB Covalent attachment of two glucose mols. to DTPA and coordination to Gd(III) produces a neutral complex which may be used as a potential contrast agent in MRI. The waterproton relaxation rates for the **glycosylated** complex is higher than [Gd(DTPA)]²⁻ and [Gd(DOTA)]¹⁻ at 1H Larmor frequencies of 10 MHz and greater. This increase in the 1H magnetic relaxation efficiency is consistent with a decrease in the electron relaxation rate and the rotational correlation rate for the **glycosylated** complex.

L56 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2000 ACS

1995:826618 Document No. 123:237801 Preparation and use of immunoconjugates.

Hansen, Hans J.; Leung, Shuion; Shevitz, Jerry; Griffiths, Gary L.; Govindan, Seregulam V. (Immunomedics, Inc., USA). PCT Int. Appl. WO 9515769 A1 19950615, 85 pp. DESIGNATED STATES: W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LT, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, UZ, VN; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1994-US13668 19941205. PRIORITY: US 1993-162912 19931208.

AB The present invention relates to immunoconjugates comprising an antibody fragment which is covalently bound to a diagnostic or therapeutic principle through a carbohydrate moiety and about position 18 in the light

chain variable region of the antibody fragment. The invention also relates to immunoconjugates comprising an antibody moiety that is an intact antibody contg. a **glycosylation** site at about position 18 in the light chain variable domain which as been introduced into the antibody by mutating the nucleotide sequence encoding the light chain.

The resultant immunoconjugates retain the immunoreactivity of the antibody

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fragment or intact antibody, and target the diagnostic or therapeutic principle to a target where the diagnostic or therapeutic effect is realized. Thus, the invention contemplates the use of such immunoconjugates for diagnosis and immunotherapy. The invention further relates to methods for prep. such immunoconjugates.

L56 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2000 ACS

1995:632050 Document No. 123:32862 Preparation of sapphyrin derivatives, conjugates, polymers, and chromatographic supports. Sessler, Jonathan L.;

Iverson, Brent L.; Kral, Vladimir; Shreder, Kevin; Furuta, Hiroyuki; Thomas, Richard E. (Board of Regents, the University of Texas System, USA). PCT Int. Appl. WO 9409003 A1 19940428, 201 pp. DESIGNATED STATES: W: AT, AU, BB, BG, BR, BY, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, KZ, LK, LU, LV, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, US, VN; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1993-US9994 19931018. PRIORITY: US 1992-964607 19921021.

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. [I; R1-R10 = H, alkyl, alkenyl, alkynyl, halo, haloalkyl, (poly)glycol residue, hydroxyalkyl, alkoxyalkyl, aminoalkyl, SH, carboxyalkyl, alkoxy carbonyl, aryloxy carbonyl, CO2H, PO3H2, etc.; .gtoreq.1 of R1-R10 = (CH2)nA(CH2)mB; A = CH2, O, S, NH, NR11; R11 = alkyl, alkenyl, alkynyl, halo, haloalkyl, hydroxyalkyl, SH, PO3H2, (poly)glycol residue, etc.; B = alkenyl, alkynyl, halo, haloalkyl, hydroxyalkyl, (poly)glycol residue, SH, substituted alkyl, PO3H2, amino, hydroxyalkyl, aryl, silyl, siloxy, aminoaryl, amino, amidoaryl, sugar residue, metal chelating group, (modified) nucleobase, oligonucleotide residue, (modified) sapphyrin residue, steroid residue, amino acid residue, peptide residue, polymeric or solid support matrix, etc.; n, m = 0-10], were prepd. Thus, 3,12,13,22-tetraethyl-8,17-bis(carboxyethyl)-2,7,18,23-tetramethylsapphyrin was stirred with (COCl)2 in CH2Cl2 contg. cat. DMF to give the bis acid chloride; this in CH2Cl2 was added to a soln. of 1-(2-aminoethyl)-4-[(triphenylmethyl)amino]pyrimidin-2-one, 4-dimethylaminopyridine, and pyridine in CH2Cl2 and the mixt. was stirred 12 h to give 89.9% bis-amide deriv, which was refluxed in CF3CO2H to give title compd. II. II selectively effected transport of GMP across a liq. membrane at or near neutral pH. Sapphyrin binds to the phosphate backbone of DNA, and sapphyrin derivs. and conjugates may be useful as research tools and drugs.

=> s leung s?/au,in;s mcbride w?/au,in;s qu z?/au,in;s hansen h?/au,in

'IN' IS NOT A VALID FIELD CODE

L57 428 FILE MEDLINE

L58 393 FILE CAPLUS

L59 544 FILE BIOSIS

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'IN' IS NOT A VALID FIELD CODE
L60 419 FILE EMBASE
L61 53 FILE WPIDS
L62 11 FILE JICST-EPLUS

TOTAL FOR ALL FILES
L63 1848 LEUNG S?/AU, IN

'IN' IS NOT A VALID FIELD CODE
L64 461 FILE MEDLINE
L65 373 FILE CAPLUS
L66 656 FILE BIOSIS
'IN' IS NOT A VALID FIELD CODE
L67 409 FILE EMBASE
L68 32 FILE WPIDS
L69 1 FILE JICST-EPLUS

TOTAL FOR ALL FILES
L70 1932 MCBRIDE W?/AU, IN

'IN' IS NOT A VALID FIELD CODE
L71 166 FILE MEDLINE
L72 364 FILE CAPLUS
L73 222 FILE BIOSIS
'IN' IS NOT A VALID FIELD CODE
L74 128 FILE EMBASE
L75 46 FILE WPIDS
L76 12 FILE JICST-EPLUS

TOTAL FOR ALL FILES
L77 938 QU Z?/AU, IN

'IN' IS NOT A VALID FIELD CODE
L78 1598 FILE MEDLINE
L79 1155 FILE CAPLUS
L80 1744 FILE BIOSIS
'IN' IS NOT A VALID FIELD CODE
L81 1142 FILE EMBASE
L82 275 FILE WPIDS
L83 11 FILE JICST-EPLUS

TOTAL FOR ALL FILES
L84 5925 HANSEN H?/AU, IN

=> s 163 and 170 and 177 and 184

L85 0 FILE MEDLINE
L86 2 FILE CAPLUS
L87 2 FILE BIOSIS
L88 0 FILE EMBASE
L89 2 FILE WPIDS
L90 0 FILE JICST-EPLUS

TOTAL FOR ALL FILES

L91 6 L63 AND L70 AND L77 AND L84

=> dup rem l91

PROCESSING COMPLETED FOR L91

L92 4 DUP REM L91 (2 DUPLICATES REMOVED)

=> d cbib abs 1-4;s landscap? antibod?

L92 ANSWER 1 OF 4 BIOSIS COPYRIGHT 2000 BIOSIS

2000:294910 Document No.: PREV200000294910. Pretargeting colonic tumors with engineered bispecific antibodies for improved radioimmunotherapy (RAIT). **Leung, S. O.; Qu, Z.; Sharkey, R. M.; McBride, W. J.; Losman, M. J.; Chang, C. H.; Barbet, J.; Karacay, H.; Goldenberg, D. M.; Hansen, H. J.** Journal of Nuclear Medicine, (May, 2000) Vol. 41, No. 5 Suppl., pp. 270P. print.. Meeting Info.: 47th Annual Meeting of the Society of Nuclear Medicine. St. Louis, Missouri, USA June 03-07, 2000 Society of Nuclear Medicine. ISSN: 0161-5505. Language: English. Summary Language: English.

L92 ANSWER 2 OF 4 BIOSIS COPYRIGHT 2000 BIOSIS

2000:200957 Document No.: PREV200000200957. The use of bispecific fusion antibody for delivery of small molecules to tumors. **Qu, Z. Timothy (1); Hansen, H. J.; Losman, M. J.; Eliassen, K. C.; Sharkey, R. M.; McBride, W. J.; Barbet, J.; Goldenberg, D. M.; Leung, S. O.** (1) Garden State Cancer Ctr, Belleville, NJ USA. Proceedings of the American Association for Cancer Research Annual Meeting, (March, 2000) No. 41, pp. 3. Meeting Info.: 91st Annual Meeting of the American Association for Cancer Research. San Francisco, California, USA April 01-05, 2000 ISSN: 0197-016X. Language: English. Summary Language: English.

L92 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2000 ACS DUPLICATE 1

1999:819263 Document No. 132:69307 Use of bispecific antibodies for pre-targeting diagnosis and therapy. **Hansen, Hans J.; Griffiths, Gary L.; Leung, Shui-On; McBride, William J.; Qu, Zhengxing** (Immunomedics, Inc., USA). PCT Int. Appl. WO 9966951 A2 19991229, 76 pp. DESIGNATED STATES: W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA,

CH,

CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1999-US13879 19990622. PRIORITY: US 1998-90142 19980622; US 1998-104156 19981014.

AB The present invention relates to a bispecific antibody or antibody fragment having at least one arm that specifically binds a targeted tissue

and at least one other arm that specifically binds a targetable conjugate.

The targetable conjugate comprises a carrier portion which comprises or bears at least one epitope recognizable by at least one arm of said

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bispecific antibody or antibody fragment. The targetable conjugate further comprises one or more therapeutic or diagnostic agents or enzymes.

The invention provides constructs and methods for producing the bispecific antibodies or antibody fragments, as well as methods for using them.

L92 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2000 ACS DUPLICATE 2
1999:325973 Document No. 130:336967 Glycosylated antibodies and antibody fragments having reactive ketone groups. **Leung, Shui-On;** McBride, William J.; Qu, Zhengxing; Hansen, Hans (Immunomedics, Inc., USA). PCT Int. Appl. WO 9924472 A2 19990520, 32 pp. DESIGNATED STATES: W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1998-US23238 19981106. PRIORITY: US 1997-64386 19971106.

AB The authors disclose methods of making glycosylated antibodies or antibody fragments having reactive ketone groups within the saccharide residues. The method comprises transfecting a cell with a vector encoding an antibody having glycosylation sites engineered within the V.kappa. or CH1 domains. Culture of the transfecting cells in medium contg. a ketone deriv. of a saccharide (e.g., N-levulinoyl fucose) or saccharide precursor (e.g., N-levulinoyl mannosamine) allows for biosynthetic incorporation of the reactive ketone saccharides within the engineered oligosaccharides. In addn., the authors disclose immunoconjugates prepd. from the glycosylated antibodies. In one example, the oligosaccharide of engineered ant-CD22 antibodies was conjugated to DTPA derivs. to prep. ¹¹¹In and ⁹⁰Y chelates. In a second example, the oligosaccharide of engineered ant-CD22 antibodies was conjugated to doxorubicin.

L93 0 FILE MEDLINE
L94 0 FILE CAPLUS
L95 0 FILE BIOSIS
L96 0 FILE EMBASE
L97 0 FILE WPIDS
L98 0 FILE JICST-EPLUS

TOTAL FOR ALL FILES

L99 0 LANDSCAP? ANTIBOD?

=> s landscap?(1)antibod?

L100 21 FILE MEDLINE
L101 11 FILE CAPLUS
L102 23 FILE BIOSIS
L103 8 FILE EMBASE
L104 0 FILE WPIDS
L105 0 FILE JICST-EPLUS

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Page 18

TOTAL FOR ALL FILES

L106 63 LANDSCAP?(L) ANTIBOD?

=> s l106 and (glycosylat? or (g6.535.504 or h1.181.404.495)/ct)

L107 0 FILE MEDLINE
L108 0 FILE CAPLUS
L109 0 FILE BIOSIS
L110 0 FILE EMBASE
L111 0 FILE WPIDS
L112 0 FILE JICST-EPLUS

TOTAL FOR ALL FILES

L113 0 L106 AND (GLYCOSYLAT? OR (G6.535.504 OR H1.181.404.495)/CT)

=> s l106 and (levulinoyl(w)(mannosamine or fucose) or (ketone or d2.522/ct)
or (saccharide or hydrazide? or hydroxylamine? or thiosemicarbazide? or l1 or
l2 or l3 or l4))

L114 0 FILE MEDLINE
L115 0 FILE CAPLUS
L116 0 FILE BIOSIS
L117 0 FILE EMBASE
L118 0 FILE WPIDS
L119 0 FILE JICST-EPLUS

TOTAL FOR ALL FILES

L120 0 L106 AND (LEVULINOYL(W)(MANNOSAMINE OR FUCOSE) OR (KETONE OR
D2.522/CT) OR (SACCHARIDE OR HYDRAZIDE? OR HYDROXYLAMINE? OR
THIOSEMICARBAZIDE? OR L1 OR L2 OR L3 OR L4))

=> s (l63 or l70 or l77 or l84) and l106

L121 0 FILE MEDLINE
L122 0 FILE CAPLUS
L123 0 FILE BIOSIS
L124 0 FILE EMBASE
L125 0 FILE WPIDS
L126 0 FILE JICST-EPLUS

TOTAL FOR ALL FILES

L127 0 (L63 OR L70 OR L77 OR L84) AND L106

=> log y

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

87.97

159.81

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

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-5.56

STN INTERNATIONAL LOGOFF AT 10:13:42 ON 15 NOV 2000

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Page 19